NOTES ON *BRACHYONYCHUS* CHD. (COLEOPTERA, CARABIDAE, PANAGAEINI)¹

BY P. J. DARLINGTON, JR. Museum of Comparative Zoology

Brachyonychus is a genus of large and striking panagaeine Carabidae, distinguished from the better-known *Craspedophorus* by the form of the tarsi (4th segment more deeply emarginate and 5th shorter in *Brachyonychus*) and confined to the Indo-Chinese Subregion of the Oriental Region. The genus is rare in collections. It was therefore a pleasant surprise to find a series of 48 unstudied specimens, from several localities, in the collection of the United States National Museum. These specimens, with a single one previously in the Museum of Comparative Zoology, justify the following notes.

Previously described *Brachyonychus* differ very little among themselves except in one character: the extent of punctation of the elytral intervals. The latter vary from entirely punctate (and pubescent) to nearly impunctate (and glabrous) with only the 9th and the outer edges of the 8th intervals punctate at the sides of the elytra. These differences and other slight ones chiefly of form and markings have been treated as specific characters in the past, but the series before me suggests that the elytral punctation and other characters, though fairly constant in any one locality, vary geographically in such a way as to suggest that there is only one real species of *Brachyonychus* with several geographical subspecies, as follows.

(1) Elytral intervals all punctate (but 1st and 2nd ones sometimes less densely so).

Brachyonychus sublaevis sublaevis Chd. Cochin-China (humeratus Chd.) & Cambodia

sublaevis perraudierei Bts. Indo-China

(Pnomh Pen.)

sublaevis punctipennis Gestro Laos

(2) Elytra with a small discal area impunctate, including 1st. and 2nd. intervals near middle of elytral length.

 $^{1}\, \rm Published$ with a grant from the Museum of Comparative Zoology at Harvard College.

Brachyonychus sublaevis medius n. subsp. (see below) Lower Siam

(3) All discal intervals of elytra impunctate; lateral intervals 9, 8, and (sparsely) 7 punctate.

Brachyonychus sublaevis parumpunctatus Bts.

Tenasserim,

part of Siam,

Malay Pen.

(4) Only lateral intervals 9 and outer edge of 8, and base of elytra, punctate.

Brachyonychus sublaevis andersoni Bts. Mergui Arch. (Elphinstone Is.)

etc.

(5) Only lateral intervals 9 and outer edge of 8 punctate. Brachyonychus sublaevis laevipennis Chd. Part of Siam, Cochin-China

References to the original descriptions of the named forms will be found in Andrewes' Catalogue of Indian (Oriental) Carabidae (Part 18 of the Catalogue of Indian Insects, published by the Government of India, Calcutta, 1930).

It will be seen that, generally speaking, individuals with the most extensive elytral punctation (typical sublaevis etc.) occur in Cochin-China (there are 8 examples of this form in the U.S.N.M. material); more northern individuals from Indo-China (perraudierei Bts.) and Laos (punctipennis Gestro) are fully punctate too, and it remains to be seen whether these two names are recognizable on other characters; and more western specimens, from Siam, Tenasserim, the Mergui Archipelago, and the Malay Penninsula, have the elytral punctation either sparse at middle of disc or absent in a smaller or larger discal area. The only locality listed above which is not consistent with this general distribution is the "Cochin-China" record of laevipennis. However, the variation in punctation apparently does not form a simple cline; the exact distribution of the different forms is uncertain because of the indefiniteness of the older type localities, but the distribution of different populations appears to be somewhat irregular. Only more material will show just how many forms are really recog-

Psyche

nizable, but it is clear that one distinct, intermediate subspecies is undescribed. I propose to call it

Brachyonychus sublaevis medius n. subsp.

Generally similar in form, appearance, and most structural characters to typical *sublaevis* Chd.; dull black, each elytron with a somewhat irregular, slightly transverse, yellow or reddish-yellow blotch behind the humerus (from the outer side of interval 2 or 3 to and including interval 9) and another before the apex (from intervals 3 to 7 inclusive); elytra lightly striate, the striae finely punctulate; elytral intervals punctate and pubescent except in a small, poorly defined discal area at and behind the middle and including the first 2 intervals of each elytron — actually the transition from impunctate to closely punctate areas involves several additional intervals. Length (in straightened individuals) 23-27; width about 10-12.5 mm.

Holotype & (dissected) (U.S.N.M.) and 10 paratypes (6 in U.S.N.M., 3 in M.C.Z., 1 in British Museum) from TRANG ("Trong"), LOWER SIAM, not dated, collected by W. L. Abbott; and 3 additional paratypes (2 in U.S.N.M., 1 in M.C.Z.) from KAO CHONG, TRANG PEN (INSULA), SIAM, 1,000 ft. altitude, VIII (19)33, collected by Hugh M. Smith.

This new subspecies is sufficiently compared with previously known forms above.